

CLAIMS

What is claimed is:

1. A device for controlling a plurality of machines, comprising at least one computer located remote from at least one of the machines, said at least one remote computer connected via at least one bus system with each of the machines for unidirectional or bidirectional exchange of data and control signals between the at least one computer and the machines, wherein all functions for controlling the machines are integrated in the at least one remote computer.
2. The device of claim 1, wherein the at least one bus system comprises an Ethernet bus system.
3. The device of claim 1, wherein the at least one bus system is a redundant bus system.
4. The device of claim 1, wherein the at least one computer is a personal computer or a workstation.
5. The device of claim 1, wherein the control functions for at least two machines are executed in parallel on the remote computer.

6. The device of claim 1, wherein the control functions are distributed over at least two remote computers for processing.
7. The device of claim 1, wherein the machine is provided with an UltraThinClient that lacks a built-in intelligence.
8. The device of claim 1, and further comprising a central electric power supply for supplying electric power to the machines.
9. The device of claim 1, wherein the machines are selected from the group consisting of machine tools, processing machines and robots.